CLAIMS

We claim:

1. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising, as a first component an effective amount of a sesquiterpene lactone species and an effective amount of a second component selected from the group consisting of a diterpene lactone species and a triterpene species or derivatives thereof.

2. The composition of Claim 1 wherein first and second components are derived from plants or plant extracts. .

3. The composition of Claim 1 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di-saccharides, amino acids, sulfates, succinate, acetate and glutathione.

4. The composition of Claim 1, formulated in a pharmaceutically acceptable carrier.

5. The composition of Claim 1, additionally containing one or members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

6. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, aneoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof.

7. The composition of Claim 6 wherein first and second components are derived from plants or plant extracts.

8. The composition of Claim 6 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

9. The composition of Claim 6, formulated in a pharmaceutically acceptable carrier.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

10. The composition of Claim 6, additionally containing one or members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

11. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, and melapodin A; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof.

12. The composition of Claim 11 wherein first and second components are derived from plants or plant extracts.

13. The composition of Claim 11 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

14. The composition of Claim 11, formulated in a pharmaceutically acceptable carrier.

15. The composition of Claim 11, additionally containing one or members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

16. A composition for inhibition of inducible COX-2 activity and having minimal effect on COX-1 activity, said composition comprising, as a first component an effective amount of a pharmaceutical grade parthenolide and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, ursolic acid, oleanolic acid, and derivatives thereof.

17. The composition of Claim 16 wherein first and second components are derived from plants or plant extracts.

18. The composition of Claim 16 wherein at least one of said first or second component is conjugated with a compound selected from the group consisting of mono- or di- saccharides, amino acids, sulfates, succinate, acetate and glutathione.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

19. The composition of Claim 16, formulated in a pharmaceutically acceptable carrier.

20. The composition of Claim 16, additionally containing one or members selected from the group consisting of antioxidants, vitamins, minerals, proteins, fats, carbohydrates, glucosamine, chondrotin sulfate and aminosugars.

21. A method of dietary supplementation in animals comprising administering to an animal suffering symptoms of inflammation a composition comprising, as a first component an effective amount of a sesquiterpene lactone species and an effective amount of a second component selected from the group consisting of a diterpene lactone species and a triterpene species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

22. The method of Claim 21 wherein the composition is formulated in a dosage form such that said administration provides from 0.05 to 5.0 mg body weight per day of each sequesterpene lactone species, and from 0.5 to 20.0 mg/kg bodyweight per day of each diterpene lactone species or triterpene species.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

23. The method of Claim 21, wherein the composition is administered in an amount sufficient to maintain a serum concentration of 0.001 to 10 μM of each sesquiterpene lactone species and from 0.001 to 10 μM of each diterpene lactone or triterpene species.

24. The method of Claim 21 wherein said animal is selected from the group consisting of humans, non-human primates, dogs, cats, birds, horses and ruminants.

25. The method of Claim 21 wherein administration is by a means selected from the group consisting of oral, parenteral, topical, transdermal and transmucosal delivery.

26. A method of dietary supplementation in animals comprising administering to an animal suffering symptoms of inflammation a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, aneoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

27. The method of Claim 26 wherein the composition is formulated in a dosage form such that said administration provides from 0.05 to 5.0 mg body weight per day of each sequesterpene lactone species, and from 0.5 to 20.0 mg/kg bodyweight per day of each diterpene lactone species or triterpene species.

28. The method of Claim 26, wherein the composition is administered in an amount sufficient to maintain a serum concentration of 0.001 to 10 μM of each sesquiterpene lactone species and from 0.001 to 10 μM of each diterpene lactone or triterpene species.

29. A method of dietary supplementation in animals comprising administering to an animal suffering symptoms of inflammation a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, and melapodin A; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

30. A method of dietary supplementation in animals comprising administering to an animal suffering symptoms of inflammation a composition comprising, as a first

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

component an effective amount of a pharmaceutical grade parthenolide and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, ursolic acid, oleanolic acid, and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

31. A method of therapeutic treatment in animals comprising administering to an animal suffering symptoms of arthritis a composition comprising, as a first component an effective amount of a sesquiterpene lactone species and an effective amount of a second component selected from the group consisting of a diterpene lactone species and a triterpene species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

32. A method of therapeutic treatment in animals comprising administering to an animal suffering symptoms of arthritis a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid,

triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

33. A method of therapeutic treatment in animals comprising administering to an animal suffering symptoms of arthritis a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, and melapodin A; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

34. A method of therapeutic treatment in animals comprising administering to an animal suffering symptoms of arthritis a composition comprising, as a first component an effective amount of a pharmaceutical grade parthenolide and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, ursolic acid, oleanolic acid, and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

35. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising, as a first component an effective amount of a sesquiterpene lactone species and an effective amount of a second component selected from the group consisting of a diterpene lactone species and a triterpene species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

36. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

37. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

group consisting of parthenolide, encelin, leucanthin B, enhydrin, and melapodin A; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

38. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of acne rosacea a lotion comprising a composition comprising, as a first component an effective amount of a pharmaceutical grade parthenolide and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, ursolic acid, oleanolic acid, and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

39. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising, as a first component an effective amount of a sesquiterpene lactone species and an effective amount of a second component selected from the group consisting of a diterpene lactone species and a triterpene species or derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

40. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, melapodin A, tenulin, confertiflorin, burrodin, psilostachyin A, costunolide, strigol and helenalin; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

41. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising, as a first component an effective amount of a pharmaceutical grade compound selected from the group consisting of parthenolide, encelin, leucanthin B, enhydrin, and melapodin A; and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, dehydroandrographolide, deoxyandrographolide, neoandrographolide, ursolic acid, oleanolic acid, betulin, betulinic acid, glycyrrhetinic acid, glycyrrhizic acid, triperin and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633

42. A method of therapeutic treatment comprising applying to the skin of a human suffering symptoms of psoriasis a lotion comprising a composition comprising, as a first component an effective amount of a pharmaceutical grade parthenolide and a second component an effective amount of a pharmaceutical grade compound selected from the group consisting of andrographolide, ursolic acid, oleanolic acid, and derivatives thereof, and continuing said administering of the composition until said symptoms are reduced.

THORPE, NORTH & WESTERN
8180 South 700 East, Suite 200
Sandy, Utah 84070
Telephone (801) 566-6633